

IN THE CLAIMS:

1. – 2. (Cancelled).

3. (Previously Presented): The process according to Claim 57 comprising heating said aqueous solution to a temperature of about 45-80°C prior to said contacting.

4. (Cancelled).

5. (Previously Presented): The process according to Claim 57 wherein said aqueous solution contains an excipient, an active ingredient and/or other sweetener than xylitol.

6. (Previously Presented): The process according to Claim 5 wherein a secondary spray of a liquid containing an excipient, an active ingredient and/or other sweetener than xylitol is simultaneously provided.

7. (Previously Presented): The process according to Claim 57 wherein said removal of the water solvent is performed by the introduction of a drying gas heated to a temperature of about 55-170°C.

8. (Previously Presented): The process according to Claim 7 wherein said water solvent removal provides a xylitol material dried to a free moisture content of about 0.1 to 3% while said xylitol material is still in a suspended state.

9. (Previously Presented): The process according to Claim 57 wherein said conditioning is maintained to allow xylitol microcrystallization to proceed in said composition.

10. (Previously Presented): A process according to Claim 57 wherein said xylitol composition is allowed to settle on a moving belt and to form thereon a substantially continuous agglomerated porous powder layer having a thickness of about 0.5 – 5 cm.

11. (Previously Presented): The process according to claim 10 wherein said conditioning includes treating said composition in said agglomerated layer with a drying gas having a temperature of about 50-100°C, for a time of about 10-180 minutes.

12. (Original): The process according to claim 11, wherein said conditioning is performed in several successive steps with decreasing drying gas temperatures.

13. (Previously Presented): The process according to claim 11, which further comprises cooling said conditioned agglomerated layer to provide a substantially flat porous and brittle plate comprising microcrystalline xylitol.

14. (Previously Presented): The process according to claim 12, comprising subjecting said plate to a comminuting action to break up said agglomerated layer.

15. (Previously Presented): The process according to Claim 57 which further comprises fractionating microcrystalline xylitol particles and recirculating at least a portion thereof to provide a feed of said fine solid particles containing microcrystalline xylitol.

16. (Previously Presented): The process according to claim 15, comprising recovering microcrystalline xylitol particles having a mean particle size of about 0.1 – 10 mm.

17. (Previously Presented): The process according to Claim 57 wherein about 30-70% of the dried xylitol composition derives from said feed of solid microcrystalline particles.

18. (Previously Presented): The process according to Claim 57 wherein said solid particles are retained in a fluidized state until they have grown to predetermined weight.

19. (Previously Presented): The process according to Claim 57 comprising recirculating microcrystalline xylitol particles having a mean particle size below about 0.2 mm.

20. (Previously Presented): The process according to Claim 57 comprising processing said microcrystalline xylitol optional excipients, carriers and/or active ingredients into a pharmaceutical or oral hygiene product.

21. (Previously Presented): The process according to Claim 57 comprising processing said microcrystalline xylitol into a tablet with optional excipients, carriers and/or active ingredients by direct compression.

22. (Previously Presented): The processing according to claim 19, comprising processing said microcrystalline xylitol into a chewing gum by mixing with conventional chewing gum ingredients.

23. – 39. (Cancelled).

40. (Presently Presented): The process according to Claim 57 wherein said aqueous solution of xylitol has a xylitol concentration of 50 – 77% by weight.

41. (Presently Presented): The process according to Claim 57 comprising heating said aqueous solution to a temperature of about 55 – 70°C prior to said contacting.

42. (Previously Presented): The process according to Claim 57 wherein said removal of the water solvent is performed by the introduction of a drying gas heating to a temperature of about 80 - 150°C.

43. (Previously Presented): The process according to Claim 57 wherein said removal of said solvent is performed by the introduction of a drying gas heated to a temperature of about 90 - 130°C.

44. (Previously Presented): The process according to Claim 7, wherein said drying gas is air.

45. (Previously Presented): The process according to claim 7, wherein said solvent removal provides a xylitol material dried to a free moisture content below 1% while said xylitol material is still in a suspended state.

46. – 56. (Cancelled).

57. (Currently Amended): A process for the crystallization of xylitol comprising the steps of:

- (a) contacting spraying an aqueous solution of xylitol, said xylitol being present in a concentration of between about 30% and about 80% by weight, into contact with gas suspended fine solid particles containing microcrystalline xylitol;
- (b) causing substantial removal of the water solvent from said aqueous solution in the gas suspended state and allowing the resultant xylitol material to form an essentially solid composition of matter comprising a multitude of microcrystals of xylitol; and
- (c) causing said xylitol composition to be conditioned during a further drying step to provide a product consisting essentially throughout its entire structure of a multitude of microcrystals of xylitol agglomerated together in a random manner.